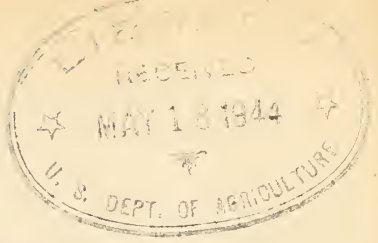

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FARMERS' COOPERATIVE DEMONSTRATION WORK IN ITS RELATION TO RURAL IMPROVEMENT.

BY

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FARMERS' COOPERATIVE DEMONSTRATION WORK IN ITS RELATION TO RURAL IMPROVEMENT.

INTRODUCTION.

The aim of the Farmers' Cooperative Demonstration Work is to place a practical object lesson before the farm masses, illustrating the best and most profitable methods of producing the standard farm crops, and to secure such active participation in the demonstrations as to prove that the average farmer can produce better results.

This work also shows that there is no necessity for the general deterioration of farms and the too common poverty of the rural masses. When these facts have been demonstrated, the first step in the improvement of rural conditions has been taken.

THE NECESSITY FOR IMPROVED RURAL CONDITIONS IN THE SOUTH.

Every substantial advance in the progress of human society costs money and must be maintained by an increased earning capacity of the masses. Food and clothing are the first requirements. If the earning capacity of a people is only sufficient to supply these, progress is blocked and it is useless to insist upon better houses, more home comforts, schools, or any upward step. The problem is, Are the rural masses unwilling to provide the betterments which a progressive civilization in the country demands—comfortable houses with improved home and farm equipment, good schools and more months of schooling, better highways, rural free delivery, telephones, etc.—or do they lack the means?

Upon the answer depends the proper remedy for existing conditions. If unable, steps should be taken to increase the earning capacity of the rural toilers; if able but unwilling, the rural pride should be aroused and the force of public opinion, and even law, brought to bear. Nearly every man, even among the poorest, will clothe his family better, improve his home, and add conveniences if he earns more. In the course of social investigations in rural districts for many years the writer noticed that invariably better clothing and more comfortable homes result from increased earnings. Go into a thousand villages in the South and ask the merchants if the poorest colored men would buy better clothes if they had the money. The answer is: "They will buy everything in sight—clothing,

watches, buggies, etc." Their expenditure may not be judicious, but it shows a desire to spend money to increase their comforts. Experience will correct the errors.

The farmer is necessarily conservative, but offer him a genuine thing and prove it and no one is more responsive. He will not accept what has not been fully tested, and he must see it to believe, because he has been frequently deceived. He wants all that the best civilization can give him if he can get it. Increase the net income of the average farmer and the wages of the rural toiler and the first step necessary to the uplift of the rural masses will have been taken. Then the following results will be brought about as rapidly as time will permit:

(1) The emancipation of the farmer from the bondage of debt.

(2) The ownership of more and better tools, teams, and stock on the farm.

(3) The improvement of the land.

(4) Better rural school buildings and more months of schooling.

(5) Better highways, rural-mail delivery, and telephone service.

(6) Contentment with the life of a farmer.

In the Southern States, in every township and in nearly every neighborhood, there are a few who are able to support a better civilization than the one in which they live. Finding that it is difficult to obtain what they require they move to a town or city. Such removals to secure better social, religious, or educational advantages are matters of common occurrence. But, after all, this class forms the minority, and it is the condition of the great majority which must be considered.

Most people agree that rural conditions should be improved. The farmer believes it as strongly as anyone. The problem is to know where to begin. Shall we trust the people and commence by increasing their resources or shall our efforts be directed to improving farm dwellings and home conditions, the construction of better highways, or the introduction of the telephone, the rural free delivery of mails, the community library, and improved social and religious privileges?

Evidently the answer depends upon the degree of advancement of rural communities. The remedy that would help one might be utterly inapplicable to another. For example, if it were found that the average farmer in a rural township lived in a house valued at about $100, without any barn or garden (not a mere patch of green, but a well-tilled plot that furnished in the South sufficient tubers, roots, legumes, melons, and fruit in their season for the family) and without a cow, a pasture, and a sufficient supply of poultry, and if it were also found that a majority of the tillers of the soil were unable to read and were heavily involved in debt, it would be the height of folly to commence the rural uplift by establishing a public library

or even a school. The rural toilers must first be properly nourished, clothed, and housed; it is the order of greatest necessity. The money to do this can not be given to them, and if it were there would be no uplift. They must be shown how to earn it by a better tillage of the soil and how to husband their earnings by greater thrift. Low wages, a small amount of work accomplished in a day, and an uneconomic use of resources are features of any civilization marked by a low earning capacity.

No mistake is made more frequently than to assume that low wages are a result of oppression. As a rule the wages are determined by the accomplishment. In India it requires from fourteen to twenty-four servants to do the work of a small household, where in some portions of the United States two would do it better.

Upon a farm one man in the United States with a good team and modern machinery can do the work that fifty to one hundred men do in many oriental countries. Consequently, when the latter are paid 5 to 10 cents a day they are paid up to their earning capacity, a capacity that is insufficient to sustain a high civilization.

As a preliminary step, then, in this inquiry, let us determine the present status of the rural South with respect to the following items:

(1) The earning capacity of the average farm worker in the South.

(2) The average number of acres in each State worked by one man.

(3) The character and value of the farm buildings.

(4) The value of implements and tools on the average farm in each State.

(5) The number of horses or mules used for each farm laborer.

(6) The average number of milch cows on each farm.

(7) The average value of poultry on each farm.

(8) The percentage of farms in each State worked by tenants.

The following tables present these facts in compact form for the various sections of the United States.

TABLE I.—*Farm conditions in North Atlantic division of the United States.*

State.	Annual income of each farm worker.[a]	Number of acres worked by one man.	Value of buildings on each farm.	Value of implements and machinery on each farm.	Number of horses to each farm laborer.	Number of milch cows to each farm.	Value of poultry on each farm.	Percentage of farms worked by tenants in each State.
Connecticut	$357.78	24+	$1,469.55	$139.98	1.2	6	$28	12.9
Maine	266.50	29+	655.08	109.51	1.425	3.5	15.8+	4.7
Massachusetts	404.49	19+	1,629.29	180.37	1.15	6.5+	33.3+	9.6
New Hampshire	301.21	28+	983.62	136.90	1.467	5.1+	20 −	7.5
New Jersey	356.09	28+	1,528.11	186.81	1.45	5.8+	42 +	29.9
New York	296.25	41+	1,139.48	180.53	1.7	7.6+	2.4+	23.9
Pennsylvania	261.15	39+	1,173.34	166.98	1.9	4.7+	21.3+	26
Rhode Island	363.69	17+	1,637.13	205.06	1	5.8+	6.3+	20.1
Vermont	327.37	43+	877.87	170.61	1.75	9.2+	14.7+	14.5

[a] The figures in this column are taken from the twelfth census report and refer specifically to "each person, 10 years of age or over, engaged in agriculture."

TABLE II.—*Farm conditions in North Central division of the United States.*

State.	Annual income of each farm worker.[a]	Number of acres worked by one man.	Value of buildings on each farm.	Value of implements and machinery on each farm.	Number of horses to each farm laborer.	Number of milch cows to each farm.	Value of poultry on each farm.	Percentage of farms worked by tenants in each State.
Illinois	$425.13	60+	$754.49	$134.20	3.2	4.85	$26	39.3
Iowa	611.11	80+	818.87	196.55	3.9	6.8	30.5	34.9
Indiana	316.70	48+	454.86	78.99	2.4	2.967	20.2+	28.6
Kansas	461.40	92+	489.32	122.12	4.06	4.5	28 —	35.2
Michigan	239.64	38+	571.69	108.26	1.95	3.2	14.5—	15.9
Minnesota	465.35	72+	542.10	141.11	2.8	5.4+	16 +	17.3
Missouri	269.47	49+	401.05	80.45	2.713	3.2—	21.5+	30.5
Nebraska	554.78	98+	586.01	164.11	4.567	4.8+	21.8+	36.9
North Dakota	755.62	134+	426.00	238.84	5.125	3.6—	13 +	8.5
Ohio	312.58	46+	602.88	97.60	2.133	3.3+	19.8+	27.4
South Dakota	605.69	136+	412.03	203.14	5.9	6.1	20 +	21.8
Wisconsin	349.49	42+	683 24	122.77	2.125	6.4+	15.4+	13.5

TABLE III.—*Farm conditions in South Central division of the United States.*

State.	Annual income of each farm worker.[a]	Number of acres worked by one man.	Value of buildings on each farm.	Value of implements and machinery on each farm.	Number of horses to each farm laborer.	Number of milch cows to each farm.	Value of poultry on each farm.	Percentage of farms worked by tenants in each State.
Alabama	$143.98	16+	$95.56	$23.40	0.675	1.8	$7.36	57.7
Arkansas	169.60	20+	114.13	32.25	1.25	2.47	9.81	45.4
Indian Territory	292.94	33+	102.35	54.50	3	3.5	12.45	74.9
Kentucky	192.57	33+	214.05	38.22	1.6	1.9 +	12.8 +	32.8
Louisiana	216.47	16+	130.10	21.23	1.16	2.85	11.8 +	58
Mississippi	168.33	15+	102.43	26.51	.9	2.1 +	8.8 +	62.4
Oklahoma	458.93	58+	184.45	88.17	3.8	3.5 +	15.8 +	21
Tennessee	170.91	24+	131.64	42.85	1.5	1.8 +	11 —	40.6
Texas	305.63	30+	172.66	52.01	2.8	3.3 +	11.8 +	49.7

TABLE IV.—*Farm conditions in South Atlantic division of the United States.*

State.	Annual income of each farm worker.[a]	Number of acres worked by one man.	Value of buildings on each farm.	Value of implements and machinery on each farm.	Number of horses to each farm laborer.	Number of milch cows to each farm.	Value of poultry on each farm.	Percentage of farms worked by tenants in each State.
Delaware	$236.07	39+	$940.56	$178.86	1.8¼	4.3	$38.4	50.3
District of Columbia	.....	4+	6,493.62	503.47	.....	.....	.....	43.1
Florida	119.72	17+	175.87	30.43	.6⅔	3.7	11.2	26.5
Georgia	158.69	20+	115.58	24.93	.6½	1.9	7.5	59.9
Maryland	243.85	37+	800.16	112.08	1.7½	4. +	27.4+	33.6
North Carolina	146.75	18+	134.25	23.24	.6½	1.6+	7.3+	41.4
South Carolina	144.46	14+	101.17	23.54	.5	1.5+	6.7—	61.1
Virginia	191.05	33+	219.11	29.81	1.1½	1.2+	12.2	30.7
West Virginia	180.00	30+	239.25	33.94	1.3	2.5+	11.3+	21.8

[a] The figures in this column are taken from the twelfth census report and refer specifically to "each person, 10 years of age or over, engaged in agriculture."

It will be noted that the average value of farm buildings and farm machinery for each farm as given in these tables for each State differs from that given by the census of 1900. The explanation is

that in the census enumerations the value of the buildings on a single farm, whether large or small, is given in one sum and does not therefore tell how the laborer is housed, for in this sum may be included the value of 40 or 50 houses, as is generally the case on very large farms, especially in the South. The same rule applies to implements. For our purpose the average of buildings and implements on the smaller farms was taken, so as to determine how one family lives and what implements it uses; but in every State enough farms were included in the estimates to make a majority of the farms of that State.

It should be borne in mind that these tables represent conditions in 1900. Since that time rural prosperity has been greater than in any former period of American history. Undoubtedly the next census will show marked improvements.

Tables I to IV show the value of the buildings on each farm worked by one family; the value of the implements and farm machinery; the value of poultry and the average number of cows to the farm; the number of horses (or mules) for each laborer; the number of acres each laborer tills and the amount he produces annually in value, and the percentage of farms worked by tenants in each State. These tables show the condition of the housing of families and stock in the Southern States, the farm equipment provided to do the work, the amount of work accomplished, and the annual earnings, which fully accounts for the condition of schools, roads, and churches in the country. The average income is scarcely sufficient to maintain the civilization now existing, ignoring progress—and these facts do not present the whole truth of the situation.

Quite a percentage of the small farmers still owe on their farms. Prior to 1905 the percentage of these in some States amounted to three-fourths of the whole; since that date there has been considerable decrease.

Nearly all the tenant farmers of the South and a large proportion of the farm owners have been working their lands by securing annually advances from the merchants, thus paying from 20 to 75 per cent more for their supplies than under a cash system. This situation is rapidly improving.

SOME REFORMS NEEDED IN RURAL LIFE.

For the improvement of rural life many things are needed:

(1) The improvement of country schools, or, rather, the establishing of real schools for the country. Many leading educators believe that the country school has yet to be conceived and established. It has been said with great force that "the existing country schools are but poorly equipped city schools located in the country."

(2) County or district agricultural schools, in which the main work shall be to impart knowledge that tends to make the successful

farmer and the good citizen and to give a training to youth adapted to rural life, in sympathy with toil and in love with the farm.

Several States have taken the initiative in establishing such schools. It is believed by their friends and hoped by all that they may lead to a solution of the problem of the best education for rural life.

(3) It is also desirable that text-books in country schools shall have for illustrative material incidents and experiences drawn mainly from rural life instead of from commerce, politics, diplomacy, and war.

(4) It will doubtless be found advantageous at times to cooperate in buying and selling, in borrowing money, etc.

(5) The proper valuation of property as a basis of taxation to establish and maintain rural betterments should be considered.

All the improvements required in rural life we see and realize. The purpose of this publication, however, is to call attention to a reform which is fundamental to all these things and which must necessarily precede them, logically and chronologically.

THE REMEDY OFFERED BY THE FARMERS' COOPERATIVE DEMONSTRATION WORK.

What primary remedy for the improvement of rural conditions ought a republic to propose where all the adult male citizens are expected to exercise through the ballot the functions of a ruler? Evidently it should be one that can directly and immediately benefit all the people. More than nine-tenths of the rural population of the South are limited by their conditions to an education provided by the country district school. What help can be given them that will be immediate and will benefit both parents and children? It must be such that it will reach the farm and appeal to the interests of the farmer. It must find the man and not compel the man to find it. It must be a home remedy.

The only remedy that can be successfully applied to help all the rural people, one that will be effective and immediate, is to increase the net earnings of farmers and farm laborers. The paramount issue now is how most wisely and effectively to aid all the rural people. If each farmer is shown how to produce twice as much to the acre as he now produces and at less cost, it will be a profit in which all rural classes will share and will be the basis of the greatest reform ever known to rural life.

How can the knowledge of better agricultural methods be conveyed to the masses in a way so effective that the methods will be accepted and their practice become common? For many years the United States Department of Agriculture, the agricultural colleges, the experiment stations, the agricultural press, the farmers' institutes, and the national and State bulletins upon agriculture have thrown light

upon almost every topic relating to the farm. These have been of great assistance to farmers who are alert and progressive, but the masses, especially in the South, have scarcely been affected. There came a time under cotton-boll weevil conditions when it was found necessary to reach and influence the poorer class. The cooperative demonstration plan was then tested.

The Farmers' Cooperative Demonstration Work aims at several things:

(1) To reform agriculture and make it an occupation of profit and pleasure.

(2) To improve rural conditions.

(3) To broaden and enrich rural life.

(4) To make the farm attractive and country residence desirable.

ORGANIZATION OF THIS SPECIAL WORK.

As organized under the Bureau of Plant Industry the working forces of the Farmers' Cooperative Demonstration Work consist now of 1 director with assistants, 10 State agents, and 188 district and local agents. Local agents must be practical farmers and thoroughly instructed in their duties by the State and district agents. Semiannually State meetings of agents are called for instruction, at which the director or an assistant from Washington is present. Weekly reports showing work accomplished each day are made by all agents to the director.

The campaigns for the ensuing year are planned in September, and active work commences in October by calling public meetings in every district to be worked, at which is shown the great advantage to all the people of increasing the crop yield two, three, or four fold, and it is made clear that this can be done by adopting better methods. In country villages the banker, the merchant, and the editor join with the leading farmers of the section in indorsing the progressive plans of the demonstration work; farmers agree to follow instructions, and demonstration plots of one or more acres are located so as to place a sample of the best farming in each neighborhood of a county or district. There must be enough of these to allow every farmer to see one or more during the crop-growing period. The necessary work on the plot must be done by the farmer and not by a Government agent, because the whole object lesson is thereby brought closer to the people. The demonstrating farmer understands it better because he does the work and his neighbors believe that what he has done they can do.

INSTRUCTION OF THE FARMER.

Each month during the season instructions are sent to every demonstrator and cooperator, clearly outlining the plan for manag-

ing the crop. In addition a local agent is expected to call on each demonstrating farmer monthly and explain anything not understood in the instructions.

FIELD SCHOOLS.

Previous notice by letter is given to all the cooperating farmers (such as are instructed in the work and agree to follow instructions) in a neighborhood to meet the agent on a certain date at a given demonstration farm, where the crop and plans are thoroughly discussed. This is called a "field school" and has been marvelously effective in arousing local interest. At such meetings and on all occasions where the agents meet farmers, the following fundamental requirements for good farming are discussed by the aid of notes sent out from the central office:

(1) Prepare a deep and thoroughly pulverized seed bed, well drained; break in the fall to the depth of 8, 10, or 12 inches, according to the soil, with implements that will not bring too much of the subsoil to the surface. The foregoing depths should be reached gradually.

(2) Use seed of the best variety, intelligently selected and carefully stored.

(3) In cultivated crops give the rows and the plants in the rows a space suited to the plant, the soil, and the climate.

(4) Use intensive tillage during the growing period of the crops.

(5) Secure a high content of humus in the soil by the use of legumes, barnyard manure, farm refuse, and commercial fertilizers.

(6) Carry out a systematic crop rotation with a winter cover crop.

(7) Accomplish more work in a day by using more horsepower and better implements.

(8) Increase the farm stock to the extent of utilizing all the waste products and idle lands of the farm.

(9) Produce all the food required for the men and animals on the farm.

(10) Keep an account of each farm product, in order to know from which the gain or loss arises.

In the course of these discussions it has often developed that the majority of small farmers had never fully complied with any of these rules. They thought they knew all about farming and charged their small product and failures to the seasons or the land. One farmer at a public meeting in Alabama this year expressed his views as follows: "I was born in a cotton field and have worked cotton on my farm for more than forty years. I thought no one could tell me anything about raising cotton. I had usually raised one-half a bale on my thin soil and I thought that was all the cotton there was in it in one season. The demonstration agent came along and wanted me

to try his plan on two acres. Not to be contrary, I agreed, but I did not believe what he told me. However, I tried my best to do as he said, and at the end of the year I had a bale and a half to the acre on the two acres worked his way and a little over a third of a bale on the land worked my way. You could have knocked me down with a feather. This year I have a bale and a half to the acre on my whole farm. If you do not believe it, I invite you to go down and see. Yes, sir; as a good cotton planter I am just one year old."

These field schools are bringing about a revolution. A meeting of the farmers of a township called at a home to discuss a field crop and to inspect and compare home conditions can not fail to place local public opinion upon a higher level, and that is the principal opinion to be considered in influencing the farmer.

Instead of expending time and force in molding State, city, and county influences which have but slight practical results in changing rural conditions, the Farmers' Cooperative Demonstration Work makes a direct attack on the men who should reform. It reaches them in a practical way and establishes a different local standard of excellence for farming and for living.

The initial move is an aroused public sentiment in favor of doing better.

INSTRUCTION CONFINED TO A FEW ESSENTIAL SUBJECTS.

It is of the greatest importance to confine the work to a few standard crops and the instruction to the basic methods and principles which stand for the best results and to repeat this line of instruction on every occasion until every farmer works according to some system and knows the methods that make for success instead of charging failure to the moon, to the season, to the soil, or to bad luck. It requires several years to so impress these teachings upon the masses, even when supported by demonstration, that they become the general custom of the country. The first year a few try the plan on small areas; the second year these greatly enlarge the area and some of their neighbors follow their example; the third year possibly 40 or 50 per cent adopt some of the methods, and so work progresses by the force of demonstration and public opinion until its general adoption is secured. No one is asked to believe anything not clearly proved.

SPECIAL FEATURES OF THE WORK.

In most of the Southern States the average farmer works with one mule. The cultivation of cotton and corn is a slow process; too much of it is done with the hoe.

To remedy this, resort is had to demonstration. The agent in some cases drives a team of strong mules or horses hitched to a wagon

filled with improved implements. At the field meetings this team and the improved implements are used to show how much more and how much better work can be done in a day by having good equipment. It is especially emphasized that cotton and corn should be grown without using the hoe, thus saving one-third the expense. It will be noted that the earning capacity of each worker upon a farm is almost directly in proportion to the number of horses or mules for the use of each. This is startlingly true outside of the rice, sugar-cane, and market-garden districts. In North Dakota each farm worker has five horses, cultivates 135 acres, and has an earning capacity of $755.62 yearly; in Iowa each laborer has four horses, tills 80 acres of land, and earns $611.11 annually; while in Alabama each farm laborer has three-fifths of a mule, works 15 acres, and earns $143.98. In the case of tenant farmers the earning capacity (which is the total product of any crop in the State divided by the number of workers) should be divided approximately by 2.

One of the conditions of securing a greater net income is to stop buying food products and live on what the farm supplies. If greater variety is wanted, produce it. Another condition is to accomplish more in a day.

EFFECT OF THE WORK ON THE FARMER.

Every step is a revelation and a surprise to the farmer. He sees his name in the county paper as one of the farmers selected by the United States Department of Agriculture to conduct demonstration work; he receives instructions from Washington; he begins to be noticed by his fellow-farmers; his better preparation of the soil pleases him; he is proud of planting the best seed and having the best cultivation. As the crop begins to show vigor and excellence his neighbors call attention to it, and finally when the demonstration agent calls a field meeting at his farm the farmer begins to be impressed not only with the fact that he has a good crop, but that he is a man of more consequence than he thought. This man that was never noticed before has had a meeting called at his farm; he concludes that he is a leader in reforms. Immediately the brush begins to disappear from the fence corners and the weeds from the fields; the yard fence is straightened; whitewash or paint goes on the buildings; the team looks a little better and the dilapidated harness is renovated. Finally the crop is made and a report about it appears in the county papers. It produces a sensation. A meeting is called by the neighbors and the farmer is made chairman; he receives numerous inquiries about his crop and is invited to attend a meeting at the county seat to tell how he did it.

He made a great crop, but the man grew faster than the crop. There can be no reform until the man begins to grow, and the only

possible way for him to grow is by achievement—doing something of which he is proud. He is a common farmer. What line of achievement is open to him but doing better work and securing greater results on his own farm? As soon as the man begins to grow he will work for every rural betterment.

In the Southern States nearly one-half of the farms are tilled under the tenant system. In South Carolina, Georgia, Alabama, Mississippi, and Louisiana more than 60 per cent of the farms are worked by tenants. The poor equipment of such farms and the low earning capacity of the tenant appeal strongly for help.

The tenant is urged by the demonstration agent to make a better crop and raise everything necessary for his support. He is shown that as soon as he proves himself to be a progressive and thrifty farmer it will add to his credit. He can then buy upon better terms and will soon own a farm. The landlord is seen and urged to look more closely after his farm; to improve his farm buildings, because this is necessary to the securing and retention of the best tenants; to furnish better implements or assist his tenant to purchase them; and to insist that good seed shall be used and that there shall be better tillage of the crop. Many proprietors take the deepest interest in having their tenants taught better methods. They call meetings and scatter farm literature, thus creating a sentiment favorable to the demonstration work.

RURAL IMPROVEMENT THE NATURAL RESULT OF THIS WORK.

The agents of the demonstration work are thoroughly drilled in progressive steps. When the rudiments of good farming are mastered the farmer secures a greater income for his labor. An important part of this greater net earning capacity is good farm economy and greater thrift. Farm economy dictates the production of the largest crop possible to the acre at the least expenditure of money and without impairing the productive capacity of the soil. It also includes the planting of crops of the greatest value to the acre, provided the cost of production is not proportionately increased, and it teaches a more economic support of the family, team, and stock, which is based upon home production of all the foods and forage crops consumed. For the family more use must be made of milk, eggs, the vegetable garden, and fruits; for the stock there should be better pasture and hay, especially the abundant use of legumes. Thrift demands the proper housing of family, teams, and tools, and the more economic expenditure of the greater gains of the farm arising from greater earnings and more economy. The only way to successfully attack such problems is by an example.

Long-time customs can not be overcome by writing a book. One might as well write a book to teach better sewing. Poor farming is

the natural result of a lot of bad practices and must be treated rather as a defect in art than a lack of intelligence. It is not assumed, nor is it the intention to assert, that agriculture is not one of the greatest of sciences, but at the beginning it must be treated as an art and the best methods adopted.

Then it is shown that this greater income should be applied to the reduction of debt, the betterment of the family and the home, and the improvement of rural conditions. Cooperation is then taught in buying and selling, but cooperation is of little avail in buying if the farmer has no money, and it is impossible in selling if his crop is mortgaged for advances.

The fundamental basis of the work of the Department of Agriculture is to increase the efficiency of the farmer.

If there is a better variety of cotton seed in Georgia or Texas, then the other cotton-producing States should immediately have the benefits. This is precisely such work as the Farmers' Cooperative Demonstration Work is doing in the South. It has been instrumental in the introduction annually of 100.000 to 500,000 bushels of better cotton seed. This has resulted not only in a large income in yield per acre, but an improvement in the staple.

These better varieties of cotton seed are of earlier maturity than the old. This cotton is picked on an average six weeks earlier in the fall, which gives the children six weeks more time for school and allows the farmer to prepare his land for the next season's crop. The old plan was to pick cotton all winter. The loss of cotton and the lowering of the grade by the winter rains made this plan an economic crime, and its debarring the children from attending school caused it to be a social crime. These old methods will soon be a thing of the past.

This is truly a national work, and wherever put in operation with sufficient intensity to influence public opinion these results have rapidly followed:

(1) Increased yield per acre.
(2) The purchase of more and better horses or mules.
(3) Great increase in the use of better implements.
(4) General interest in seed selection and the use of best seed.
(5) Home and school improvements.
(6) More months of schooling.
(7) Better highways.
(8) Increase of a healthy social life in the country.
(9) Intense interest in agriculture.

IMPROVED RURAL CONDITIONS ALREADY ESTABLISHED.

While the state agents of the Farmers' Cooperative Demonstration Work were in Washington, September 1, 1908, arranging some details

of their work for the year 1908–9, they called upon Secretary Wilson, and in response to inquiries made by him the following facts were brought out:

Mr. T. O. Sandy, of Burkeville, Va., State agent, reported that the demonstration work was commenced in Virginia in January, 1907. Up to this time it has been exclusively conducted in the counties south of the James River, where tobacco was the staple cash crop, under the effect of which farms had deteriorated in productive capacity and value until many were on the market a short time since at $5 to $8 an acre. Most of the hay and corn for the work animals was imported. Two hundred and thirty-two thousand dollars' worth of hay was imported within a radius of a few miles of Burkeville in one year for home consumption. The average yield of corn was 5 to 10 bushels an acre. Last year on Mr. Sandy's demonstration farm the yield was 4 to 6 tons of hay, or 75 bushels of corn to the acre.

One of the demonstrators raised 85 bushels of corn an acre. The effect of these yields was to increase the number of demonstration farms from twenty-seven last year to nearly twelve hundred this year and to stop the importation of hay just as fast as lands can be prepared and seeded to grass. Nearly all lands about Burkeville have doubled in value and some advanced threefold since the demonstration work commenced. As soon as the farmers found they could produce hay and corn profitably they wanted to engage in dairying and stock raising so as to use their idle lands. A creamery and an ice plant have been built this season at Burkeville, with the guaranty of a business requiring a thousand cows, the bank there advancing funds to purchase many of the cows, while commercial dairies are springing up in adjoining counties. This has had an immediate effect on the improvement of home conditions, because the estimate of farm life has changed. It had been thought that farming in Virginia could not be made profitable. Many farmers moved away and nearly all ceased to spend much money in farm improvements. As soon as they saw the demonstration work they commenced to improve. Eleven farmers in one section put hot-water heating and sanitary closets into their houses the past season.

Mr. W. F. Proctor, of Tyler, Tex., in charge of the demonstration work in eastern Texas, said that his territory includes about sixty counties—all infested with the boll weevil. The soil is mainly a sandy loam, well drained and well wooded, making an ideal section for the hibernation of the weevil. The weevil has caused such loss of cotton in Harrison County, Tex., that the crop in 1906 was less than one-fourth the normal quantity. Cotton being the principal cash crop, general depression followed; some farms were abandoned and a general abandonment by tenants was threatened. An appeal was made to establish the Farmers' Cooperative Demonstration Work

in Harrison County in an intensive way. The people were asked to raise money for improved seed. They raised $1,000, and later increased the amount to $1,700. An agent was sent to the county, and 300 demonstration farms were established. Last year, though exceedingly unfavorable for cotton, the increased yield over 1906 was 3,500 bales, and this year under the general adoption of the system the increase is over 16,000 bales, or a gain of $748,000 in value, including seed, for the year in one county.

At Sulphur Springs, Hopkins County, there has been a similar experience this season. The county agent, Mr. W. L. Bryson, located demonstration farms along the main highways leading to Sulphur Springs for 4 or 5 miles out, so that every farmer entering the city could not fail to observe them. Prominent citizens estimated the value of his work this year at $250,000 for the county. This better financial condition resulted in many improvements in homes and schools.

All present agreed in stating that the Farmers' Cooperative Demonstration Work was readily accepted by the farmers and aroused among them intense interest in agriculture, especially where field schools were held and the plan of the boys' corn and cotton clubs was carried out.

The agents emphasize the great gains in crops under the system of farming taught in the demonstration work, and state that the immediate effect of these increased earnings is to better the conditions of the farm and of rural life generally, particular stress being laid upon the following:

(1) Better seed and some plan for rotation of crops.
(2) Better teams and implements.
(3) Reduction of debts.
(4) Ownership of land.
(5) Improvement of home—more comfortable and neater clothing; more fruit; farm canning outfits in many cases, etc.
(6) More months of schooling.
(7) General cooperation in improvement of farm stock, etc.

Instances were cited where a single demonstration showed the farmers in the Yazoo Delta how they could increase their yield of corn from 14 to 70 bushels an acre without additional expense, and where a single small farmer saved $500 last year in commercial fertilizers from information derived from an agent in the demonstration work.

Many farmers are now working cotton without the use of the hoe or plow. Mr. Bamberg brought out this fact clearly and showed its great economic importance.

Mr. Savely called attention to the effect of field schools, stating that they were very influential in promoting home improvements and

that such schools were occasionally held on farms of colored men as well as white.

Mr. R. S. Wilson gave an illustration of the rapidity with which practical information along agricultural lines spreads through a district. As the result of ten months' work in Congressman Hobson's district a majority of the farmers were tilling their lands better; they were raising more corn and forage crops and many had adopted the Department plan of seed selection.

Mr. J. L. Quicksall spoke of the great improvement in agriculture and the betterment of rural conditions in central Texas since the demonstration work commenced.

Dr. S. A. Knapp stated that the southern people were awake. In a number of States the patriotic women are forming rural improvement clubs for the betterment of home conditions. In North Carolina they put a model kitchen on a car and sent it about the State. Congressmen are interested and are calling for agricultural speakers. It has been the general custom of southern farmers, whether in cotton, sugar, rice, or tobacco districts, to depend on one cash crop and buy their supplies of food and clothing with the proceeds. This is rapidly becoming a thing of the past. All of our agents urge the production upon the farm of all home supplies possible. The result is that the money which formerly went for current debts now goes into home improvements, better clothing, better stock, and more schooling. The earlier maturing cotton introduced and made common by our agents allows six weeks more schooling annually for the children. Rural improvement requires considerable expenditure of money, which must be provided by the farmers through an increase in the products of the farm with a decrease in their cost.

A large number of inquiries were sent out to ascertain the present conditions in the South and the effect of the Farmers' Cooperative Demonstration Work. The reports all show great improvement in rural conditions.

Without exception they fully corroborate the claim made for the Farmers' Cooperative Demonstration Work. Out of the hundreds of replies received, the following from a live worker in Texas is presented as typical in showing the general tenor of the reports made:

GIDDINGS, TEX., *September 21, 1908.*

DEAR SIR: Growing out of my efforts and the example and moral support of the business men, thirty cream separators have been bought by the farmers around here. Over $2,000 has been invested in good milch stock (one $400 bull from another part of the State has been shipped into the county), and about $500 worth of cream per month finds its way to the creameries. People all over the county are planting winter forage crops and besieging me for all kinds of information. Every one of these people is securing some good pigs to dispose of the milk.

Two business men have volunteered to put in a creamery just as soon as there is cream enough to justify it. They would do it now if I'd let them, but it is best to wait a while. Prior to March 1 of this year there was not a separator in this county.

A majority of our German farmers are very thrifty and have a good garden.

All lands in this section are fenced. Possibly one-half of 1 per cent have hog pastures of any size.

Corn is selling on the streets at from 40 to 50 cents per bushel and hay from $5 to $10 per ton, with plenty offering. People tell me that $20 for hay and 75 cents for corn have been ruling prices until this year, but the excellent season accounts for this almost if not as much as the improved methods. Regular articles on corn and feed crops were supplied the papers during seedtime, and hundreds of people are cashing this advice now. Quite a few have added to their team force and equipments, bought additional lands, etc., this year, but prior to 1908 there was not enough work in any one community to tell any decided effects.

Perhaps there has been more good accomplished for the schools than any other outside item. Through addresses to summer normals and teachers' institutes and through direct contact with schools, a general awakening is noticeable among our county people. Probably not a rural school in the county of Lee but will increase the salary, add to the equipment, or lengthen the school term. This may be attributed to a combination of causes. We come in for our share. One thousand homes in Lee and Washington counties will be invaded this winter by bulletins and circulars for which the teachers are asking as aids to the teaching of agriculture, which from now on is made mandatory in Texas. Milam, Williamson, Fayette, Burleson, and Bastrop counties will all ask for these bulletins for their pupils in agriculture.

Two German coach stallions, costing $3,000 each, and one Biltmore Jersey bull, costing $400, have been added to Lee County's list, and two stock companies about completed will soon send a buyer to Kentucky or Tennessee for two standard-bred $500 horses. Over $1,500 worth of milch cows have been bought—most of them from beyond the county—by farmers establishing dairy herds. Any milch cow having any milking qualities brings a good price here now.

I had the pleasure of organizing and conducting a school of farmers—men and women—in the art of canning corn and such vegetables as are difficult to keep. One such class was at Dime Box, in the extreme western part of the county. Much interest was manifested and it took only four days of my time.

These are as briefly as I can state them the kindred but indirect results we have obtained in this county. The other counties we have worked show signs of improvement, but not so marked.

I have no further comment. This is a faithful recital of existing facts, which speak for themselves.

Respectfully, yours. W. W. CAMPBELL.

BETTERED CONDITIONS AMONG THE COLORED PEOPLE.

It was mainly through the influence of Dr. H. B. Frissell, president, Hampton Institute, Virginia, and Dr. Booker T. Washington, president, Tuskegee Institute, Alabama, that demonstration work was inaugurated for the colored.

Where large sections of country are tilled mainly by colored farmers owning their lands it seemed advisable to appoint colored agents. In Virginia there are four, in Alabama two, and in Mississippi one.

In all other cases the white agents look after the colored farmers and do it faithfully.

In the main the colored farmers respond as readily to the demonstration work as do the whites. In Alabama and Mississippi the colored agents are graduates of the Tuskegee Institute; in Virginia they are mainly graduates or have attended the Hampton Institute.

In an article in the World's Work for July, 1908, entitled "Teaching a man his job," Booker T. Washington stated: "If I were to name a single instance of this new policy of taking education to the man on the job, an instance which seems to me more thoroughgoing and more fruitful of good than any other of which I know, I should refer to the work that the General Education Board is doing in conjunction with the Agricultural Department of Washington in order to instruct the farmers of the South, by practical demonstrations on their own farms, in the newer and better methods of cultivating the soil. No other single agency, I am sure, is destined to do more in the task of creating the New South."

The following report, selected from a large number, is a faithful presentation of the work accomplished among the colored people:

TUSKEGEE INSTITUTE, ALA., *September 23, 1908.*

DEAR SIR: (1) The demonstration work is advancing very rapidly. I feel safe in saying that 45 per cent is the minimum of the farmers who have adopted the intensive method of farming in my territory.

(2) The farmers in my territory have come into possession of better breeds of hogs, a better breed of cows, and also for the past two years they have raised more chickens than ever before. I am safe in saying that prior to the introduction of the demonstration work only 25 per cent of farmers practiced the above, and now 35 per cent is lowest.

(3) The Jesup agricultural wagon (a team and wagon donated by Hon. Morris K. Jessup, of New York, for this work) has played a prominent part in the demonstration work. I fitted up the wagon with a portable garden and drove to various meeting places, as indicated on demonstration map, and here gave concrete illustrations of how gardens should be made. A storekeeper informed me the other day that he sold more vegetables for eating purposes, such as cabbage, potatoes, peas, onions, etc., in three months last year than he has sold during all of 1908. This is due to the fact that in every meeting the farmers are urged to make better gardens.

(4) In my territory the percentage of pasturing is very low, since farmers generally let their stock run out after the crops are gathered and "tie them up" while the crops are being made. Prior to the beginning of the demonstration work there were about 10 per cent of pastures. There are now 12 per cent.

(5) The farmers in my territory are just beginning to leave the old rut of buying corn and hay to tide them over the cultivation period of their crops. Prior to the introduction of the demonstration work the average of farmers who raised enough corn to last them through the season was as low as 7 per cent; now it is about 12.

(6) The small farmers are showing a marked improvement in the matter of getting out of debt. A farmer living at Tuskegee, Ala., tells me that last year

was the first time he has ever gotten out of debt, and says it is due to the fact that he attended the farmers' meetings; and another, at Notasulga, Ala., sold enough butter, eggs, and vegetables to buy the necessary things from the store, thereby saving the high price charged for advancement. About 10 per cent of the farmers are out of debt.

(7) The increase of teams has not been so perceptible, for as a general rule the small farmer tries to keep a pretty good mule or horse, even at the expense of some other very important phase of farm management. But with reference to tools and farm machinery, the work has accomplished great results—an increase of at least 28 per cent.

(8) The rural school condition in my territory has been greatly improved, yet I find that the schools which I touch directly are some better than the average to begin with. The early varieties of cotton have aroused great enthusiasm; the people all over my territory have been and are now clamoring for new seed. Messrs. E. W. and B. W. Washington, of Cross Keys, Ala. (both demonstrators), had picked over twenty bales of cotton by September 7 from seed introduced by the Department. Mr. Jackson Donner, of Warriorstand, Ala., informs me that every man in his community is trying to buy, borrow, or beg cotton of him.

(9) I have given considerable time to the matter of encouraging the people to improve their live stock since I have been doing the demonstration work. I constructed a crate on the Jesup agricultural wagon for the purpose of carrying the best breeds of live stock, such as Berkshire and Poland China pigs and Jersey and Shorthorn calves, to the farmers' meetings and showing them just how they could improve their herds. I am glad to say that the farmers have purchased better live stock, especially Berkshire hogs, from the Tuskegee Institute and other places.

(10) The farmers are canning a large quantity of fruit and vegetables. At the most of our farmers' meetings we have had exhibits of home-canned vegetables and fruits. The increase is about 40 per cent.

(11) In our community meetings we have what is known as the inspecting committee go around and criticise the homes in general. In this way we keep the subject of applying whitewash and paint ever before the farmers, who are now building better houses and applying more paint and whitewash than I have ever known them to do before.

(12) The effect of bettering the highways and the construction of telephones is not very appreciable as yet, but in my territory there have been more mail boxes put up within the past two years than ever before. A great many farmers put them up purposely to receive the mail from the Department.

(13) The degree in which the tenants have been purchasing farms is capable of being perceived. I recall to mind instances while traveling where there was no demonstration work where tenants sought information as to the possibility of buying farms within the bounds of my territory in order that they might have the advantage of the agricultural instruction furnished by the Department.

T. M. CAMPBELL, *District Agent.*

Approved:

JAMES WILSON,
Secretary of Agriculture.

WASHINGTON, D. C., *November 7, 1908.*

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